

6 segmenting the data to generate a plurality of ATM cells;
7 buffering the plurality of ATM cells in a memory device;
8 traffic shaping the buffered plurality of ATM cells; and
9 transmitting the plurality of ATM cells on a network.

D 1 4. (Amended) The method of claim 1 wherein the traffic shaping of data is
2 performed by the central processing unit (CPU) of a computer.

1 5. (Twice Amended) A program storage device readable by a machine, tangibly
2 embodying a program of instructions executable by a machine to perform method steps for
3 segmenting asynchronous transfer mode (ATM) data, the program comprises:
4 a first code section to instruct a CPU of a personal computer to segment data to generate a
5 plurality of ATM cells, the first code section including segmentation instructions implemented in
6 the CPU to perform the operation of segmenting data;
7 a second code section to buffer the plurality of ATM cells in a memory device; and
8 a third code section to traffic shape the buffered plurality of ATM cells.

1 7. (Unamended) The program storage device of claim 5 wherein the program further
2 comprises:

3 a fourth code section to compute a new partial cyclic redundancy check used to protect
4 against bit errors.

1 8. (Unamended) The program storage device of claim 5 wherein the program
2 includes instructions to pad ATM cells which are not complete.

1 9. (Twice Amended) A method comprising:
2 performing asynchronous transfer mode (ATM) reassembly functions with a
3 segmentation and reassembly (SAR) software module implemented in a central processing unit
4 (CPU) of a personal computer including,

5 receiving in an uninterrupted stream a plurality of protocol data units without
6 interrupt in an input buffer, each protocol data unit including a plurality of ATM cells;
7 and
8 retrieving ATM cells from the input buffer until all data corresponding to a
9 payload data unit is retrieved and checking a CRC to determine whether data was
10 received without error.

1 10. (Unamended) The method of claim 9 further comprising:
2 dropping the payload data unit when the CRC indicates an error.

1 11. (Unamended) The method of claim 9 further comprising:
2 copying a cell payload from the input buffer into a reassembly buffer.

1 12. (Unamended) The method of claim 11 further comprising:
2 calculating a new partial CRC corresponding to the cell payload.

1 13. (Unamended) The method of claim 11 further comprising:
2 determining whether the cell payload includes an end of payload data unit marker; and
3 copying a second cell payload from the input buffer into the reassembly buffer when
4 retrieved cell payload does not include the end of payload data unit marker.

1 14. (Twice Amended) A program storage device readable by a machine tangibly
2 embodying a program of instructions executable by a machine to perform method steps for
3 reassembly of ATM data, the program comprising:
4 instructions readable by a CPU of a personal computer to instruct the CPU to reassemble
5 ATM data, the instructions including reassembly instructions implemented in the CPU to
6 perform the operation of the reassembly of data further including,
7 a first code section to receive a stream including a plurality of protocol data units
8 without interrupt in an input buffer, each protocol data unit including a plurality of ATM
9 cells.

1 15. (Unamended) The program storage device of claim 14 further comprising:
2 a second code section to retrieve ATM cells from the input buffer until all data
3 corresponding to a payload data unit is retrieved and checking a CRC to determine whether data
4 was received without error.

1 16. (Amended) The program storage device of claim 14 further comprises:
2 a third section to copy a cell payload from the input buffer into a reassembly buffer.